

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.**

Application Serial Number: 10/552,939  
Source: PU/10  
Date Processed by STIC: 10/24/05

***ENTERED***



PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/552,930

DATE: 10/24/2005

TIME: 10:52:18

Input Set : A:\FP-72201-PC.ST25.txt

Output Set: N:\CRF4\10242005\J552930.raw

3 <110> APPLICANT: Montana State University  
 4 Dratz, Edward A.  
 5 Mumey, Brendan M.  
 6 Jesaitis, Algirdas J.  
 8 <120> TITLE OF INVENTION: MAPPING DISCONTINUOUS ANTIBODY OR APTAMER EPITOPES FOR  
 PROTEIN  
 9 STRUCTURE DETERMINATION AND OTHER APPLICATIONS  
 11 <130> FILE REFERENCE: FP-72201-RMS  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/552,930  
 C--> 14 <141> CURRENT FILING DATE: 2005-10-14  
 16 <150> PRIOR APPLICATION NUMBER: US 60/462,870  
 17 <151> PRIOR FILING DATE: 2003-04-14  
 19 <160> NUMBER OF SEQ ID NOS: 7  
 21 <170> SOFTWARE: PatentIn version 3.3  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 8  
 25 <212> TYPE: PRT  
 26 <213> ORGANISM: Artificial  
 28 <220> FEATURE:  
 29 <223> OTHER INFORMATION: Antibody Epitope  
 31 <400> SEQUENCE: 1  
 33 Val Pro His Pro Thr Trp Met Arg  
 34 1 5  
 37 <210> SEQ ID NO: 2  
 38 <211> LENGTH: 372  
 39 <212> TYPE: PRT  
 40 <213> ORGANISM: Artificial  
 42 <220> FEATURE:  
 43 <223> OTHER INFORMATION: Antibody Epitope  
 46 <220> FEATURE:  
 47 <221> NAME/KEY: misc\_feature  
 48 <222> LOCATION: (20)..(90)  
 49 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid  
 51 <220> FEATURE:  
 52 <221> NAME/KEY: misc\_feature  
 53 <222> LOCATION: (190)..(330)  
 54 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid  
 56 <400> SEQUENCE: 2  
 58 Asp Glu Asp Glu Thr Thr Ala Leu Val Cys Asp Asn Gly Ser Gly Leu  
 59 1 5 10 15  
 W--> 62 Val Lys Ala Xaa  
 63 20 25 30  
 66 Xaa  
 67 35 40 45

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70 Xaa  
 71 50 55 60  
 74 Xaa  
 75 65 70 75 80  
 78 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Asn Glu Leu Arg Val  
 79 85 90 95  
 82 Ala Pro Glu Glu His Pro Thr Leu Leu Thr Glu Ala Pro Leu Asn Pro  
 83 100 105 110  
 86 Lys Ala Asn Arg Glu Lys Met Thr Gln Ile Met Phe Glu Thr Phe Asn  
 87 115 120 125  
 90 Val Pro Ala Met Tyr Val Ala Ile Gln Ala Val Leu Ser Leu Tyr Ala  
 91 130 135 140  
 94 Ser Gly Arg Thr Thr Gly Ile Val Leu Asp Ser Gly Asp Gly Val Thr  
 95 145 150 155 160  
 98 His Asn Val Pro Ile Tyr Glu Gly Tyr Ala Leu Pro His Ala Ile Met  
 99 165 170 175  
 102 Arg Leu Asp Leu Ala Gly Arg Asp Leu Thr Asp Tyr Leu Xaa Xaa Xaa  
 103 180 185 190  
 106 Xaa  
 107 195 200 205  
 110 Xaa  
 111 210 215 220  
 114 Xaa  
 115 225 230 235 240  
 118 Xaa  
 119 245 250 255  
 122 Xaa  
 123 260 265 270  
 126 Xaa  
 127 275 280 285  
 130 Xaa  
 131 290 295 300  
 134 Xaa  
 135 305 310 315 320  
 138 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala Pro Pro Glu Arg Lys  
 139 325 330 335  
 142 Tyr Ser Val Trp Ile Gly Gly Ser Ile Leu Ala Ser Leu Ser Thr Phe  
 143 340 345 350  
 146 Gln Gln Met Trp Ile Thr Lys Gln Glu Tyr Asp Glu Ala Gly Pro Ser  
 147 355 360 365  
 150 Ile Val His Arg  
 151 370  
 154 <210> SEQ ID NO: 3  
 155 <211> LENGTH: 8  
 156 <212> TYPE: PRT  
 157 <213> ORGANISM: Artificial  
 159 <220> FEATURE:  
 160 <223> OTHER INFORMATION: Antibody Epitope  
 162 <400> SEQUENCE: 3

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Input Set : A:\FP-72201-PC.ST25.txt  
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164 Glu Gln Gln Val Ser Thr Ala Gln  
165 1 5  
168 <210> SEQ ID NO: 4  
169 <211> LENGTH: 9  
170 <212> TYPE: PRT  
171 <213> ORGANISM: Artificial  
173 <220> FEATURE:  
174 <223> OTHER INFORMATION: Antibody Epitope  
176 <400> SEQUENCE: 4  
178 Glu Gln Gln Ala Ser Ala Thr Thr Gln  
179 1 5  
182 <210> SEQ ID NO: 5  
183 <211> LENGTH: 10  
184 <212> TYPE: PRT  
185 <213> ORGANISM: Artificial  
187 <220> FEATURE:  
188 <223> OTHER INFORMATION: Stability Sequence  
191 <220> FEATURE:  
192 <221> NAME/KEY: misc\_feature  
193 <222> LOCATION: (3)..(6)  
194 <223> OTHER INFORMATION: Xaa at positions 3-6 can be any amino acid, where up to 3 of  
the  
195 amino acids in positions 3-6 can be absent  
197 <400> SEQUENCE: 5  
W--> 199 Met Gly Xaa Xaa Xaa Xaa Gly Gly Pro Pro  
200 1 5 10  
203 <210> SEQ ID NO: 6  
204 <211> LENGTH: 5  
205 <212> TYPE: PRT  
206 <213> ORGANISM: Artificial  
208 <220> FEATURE:  
209 <223> OTHER INFORMATION: linker  
211 <400> SEQUENCE: 6  
213 Gly Ser Gly Gly Ser  
214 1 5  
217 <210> SEQ ID NO: 7  
218 <211> LENGTH: 4  
219 <212> TYPE: PRT  
220 <213> ORGANISM: Artificial  
222 <220> FEATURE:  
223 <223> OTHER INFORMATION: linker  
225 <400> SEQUENCE: 7  
227 Gly Gly Gly Ser  
228 1

RAW SEQUENCE LISTING ERROR SUMMARY                    DATE: 10/24/2005  
PATENT APPLICATION: US/10/552,930                    TIME: 10:52:19

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:2; Xaa Pos. 20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37,38  
Seq#:2; Xaa Pos. 39,40,41,42,43,44,45,46,47,48,49,50,51,52,53,54,55,56,57  
Seq#:2; Xaa Pos. 58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75,76  
Seq#:2; Xaa Pos. 77,78,79,80,81,82,83,84,85,86,87,88,89,90,190,191,192,193  
Seq#:2; Xaa Pos. 194,195,196,197,198,199,200,201,202,203,204,205,206,207  
Seq#:2; Xaa Pos. 208,209,210,211,212,213,214,215,216,217,218,219,220,221  
Seq#:2; Xaa Pos. 222,223,224,225,226,227,228,229,230,231,232,233,234,235  
Seq#:2; Xaa Pos. 236,237,238,239,240,241,242,243,244,245,246,247,248,249  
Seq#:2; Xaa Pos. 250,251,252,253,254,255,256,257,258,259,260,261,262,263  
Seq#:2; Xaa Pos. 264,265,266,267,268,269,270,271,272,273,274,275,276,277  
Seq#:2; Xaa Pos. 278,279,280,281,282,283,284,285,286,287,288,289,290,291  
Seq#:2; Xaa Pos. 292,293,294,295,296,297,298,299,300,301,302,303,304,305  
Seq#:2; Xaa Pos. 306,307,308,309,310,311,312,313,314,315,316,317,318,319  
Seq#:2; Xaa Pos. 320,321,322,323,324,325,326,327,328,329,330  
Seq#:5; Xaa Pos. 3,4,5,6

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,  
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7

**VERIFICATION SUMMARY**

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L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:62 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:16

M:341 Repeated in SeqNo=2

L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0